

ABSTRACT

5 A carbon fiber woven fabric is obtained by soaking a
cellulose-based woven fabric in a phosphoric acid or
phosphoric acid compound solution, if necessary, and then
firing in a non-oxidizing atmosphere. Also, by filling a
resin powder into and heating the above-mentioned carbon
fiber woven fabric or a carbon fiber woven fabric
10 obtained by firing a cellulose-based woven fabric in a
non-oxidizing atmosphere without treatment in a
phosphoric acid or phosphoric acid compound solution, it
is possible to obtain a carbon fiber woven fabric
suitable as a porous carbon sheet which also exhibits
water repellency. The carbon fiber woven fabric has a
15 thickness in the range of 0.05-0.4 mm, a volume
resistivity of less than $0.2 \Omega \cdot \text{cm}$ in the layer
direction, and a gas permeability of $1500 \text{ cc/cm}^2/\text{hr/mmHg}$
or greater, and is useful as a gas diffusing carbon sheet
for a fuel cell.